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EXAMINER	
MARCELO, MELVIN C	

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/813,016	LA PORTA ET AL.	
	Examiner	Art Unit	
	Melvin Marcelo	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 January 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,4,7-18,34,36,37,39 and 40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,4,7-18,34,36,37,39 and 40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application.
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The following Office Action is in response to the Appeal Brief filed 1-25-2008 canceling all rejected claims and leaving claims indicated as allowable over the prior art.

2. The indicated allowability of claims 1, 3, 4, 7-18, 34, 36, 37, 39 and 40 in the Advisory Action, filed 4-19-2006, is withdrawn in view of the reference(s) to Lamb et al. (WO 00/79827 A1). Lamb was originally cited in the European search report, dated 5-16-2002, wherein the reference was indicated as not teaching the gateway of claim 2. However, upon further review of the reference and applicant's disclosure, the functions of the Lamb's Network Discriminator and Message Handlers are identical to applicant's gateway (see Lamb's Figure 9 and applicant's specification, page 15, line 9 to page 16, line 16, describing the functions associated with the gateway (Figure 2)). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1, 4, 7-16, 18, 34, 36, 37, 39 and 40 are rejected under 35 U.S.C. 102(a) as being anticipated by Lamb et al. (WO 00/79827 A1).

With respect to the claims below, references to the prior art appear in parenthesis.

Claims

1. A multiple-protocol home location register **(Lamb's Universal Location Service Register-ULSR in Figure 9)** *comprising:*

a receiver for receiving, from a requesting network of at least two requesting networks, a network request according to one of at least two network protocols **(In Figure 9, ULSR receives a LocationRequest from ANSI-41 network, wherein requests can also be received from a GSM network)***;*

a processor, within the multiple-protocol home location register, for processing the network request utilizing a common source of data and common control procedures for the at least two network protocols to obtain information requested by the network request **(Message handler 820 in the ULSR normalize all information such that the information is common since it does not include any formatting specific to a particular network (specification, page 12, lines 12-17))***;*

a transmitter, operably coupled to the processor, for relaying the requested information to the requesting network **(In Figure 9, ULSR transmits the response Location request message to the requesting ANSI-41 network)***;*

wherein the processor comprises one or more protocol gateways, operably coupled to a database that provides the common source of data, wherein the one or more protocol gateways are arranged and constructed to interpret network requests and generate, utilizing the common control procedures for the at least two network protocols, one or more queries to the database **(In Figure 9, the protocol gateways are the Network Discriminator/Message Handlers in the ULSR, wherein the common source of data and common control procedures correspond to the generic data and control messages associated with the message**

handler such as the generic LocationRequest message provided by the message handler and used by the network service object to look up the user record in the ULSR database).

4. A method comprising the steps of:

receiving, by a multiple-protocol home location register **(Lamb's Universal Location Service Register-ULSR in Figure 9)**, *a network request from a requesting network of at least two requesting networks, wherein the network request is composed according to one of at least two network protocols* **(In Figure 9, ULSR receives a LocationRequest from ANSI-41 network, wherein requests can also be received from a GSM network)**;

processing the network requests using a common source of data and common control procedures for the two or more protocols to obtain information requested by the network request **(Message handler 820 in the ULSR normalize all information such that the information is common since it does not include any formatting specific to a particular network (specification, page 12, lines 12-17))**;

relaying the requested information to the requesting network **(In Figure 9, ULSR transmits the response Location request message to the requesting ANSI-41 network)**;

wherein the step of processing comprises the steps of:

interpreting the network request according to rules associated with one of the at least two network protocols **(Network discriminator module 810 identifies the network type and Message handler 820 identifies the type of message (specification, page 11, line 32 to page 12, line 11))**;

generating a common command related to the network request **(Normalized messages related to the network request (specification, page 12, lines 12-27))**;

generating at least one query related to the network request through employment of the common command and relaying the at least one query to a subscriber database **(Network services modules generating queries to the ULSR database 1200 based on the normalized messages (specification, page 12, lines 18-29))**;

receiving the requested information from the subscriber database **(Network service objects 835 receives requested information from the ULSR database 1200 (specification, page 12, lines 28-33)** .

7. The method of claim 4, wherein the step of processing further comprises the step of providing an interworking function between the two or more protocols **(Message handlers 820 provide the interworking function by providing the translation between different protocols ((specification, page 13, lines 1-4))**.

8. A method comprising the steps of:

receiving, by a first protocol gateway, a first message from a first network utilizing a first network protocol **(In Figure 9, ULSR receives a LocationRequest from ANSI-41 network, wherein the network discriminator/message handler functions as a protocol gateway)**;

interpreting the first message according to rules associated with the first network protocol **(In Figure 9, ANSI-41 message handler)**;

generating a command based on the interpretation of the first message, wherein the command is one of a set of commands utilized by a database manager, the first protocol gateway, and a second protocol gateway **(Message handler 820 in the ULSR normalize all information such that the information is common since it does not include any formatting specific to a particular network (specification, page 12, lines 12-17))**;

generating at least one query based on the command and relaying the at least one query to a subscriber database **(Network services modules generating queries to the ULSR database 1200 based on the normalized messages (specification, page 12, lines 18-29))**;

receiving at least one response to the at least one query related to the first message **(Network service objects 835 receives requested information from the ULSR database 1200 (specification, page 12, lines 28-33)**;

relaying the at least one response to the first network **(Responses to a database request are relayed to the requesting network (specification, page 12, line 28 to page 13, line 4))**.

9. The method of claim 8, further comprising the steps of:

receiving, by the first protocol gateway, a second message from a second network utilizing a second network protocol of the plurality of network protocols **(In Lamb's Figure 9, a location request from the second network GSM would have the corresponding steps associated with the location request from the ANSI-41 network)**;

interpreting the second message according to rules associated with the second network protocol **(GSM message handler 820)**;

generating a second command based on the interpretation of the first message **(Normalized messages results in the generic locationrequest message (820) in Figure 9)**;

generating at least one query related to the second command and relaying the at least one query related to the message to the subscriber database **(Network service object to look up user record in USLR database (830) in Figure 9)**;

receiving at least one response to the at least one query related to the second message **(Form generic call termination response (830) from the message received from a network in Figure 9)***;*

relaying, to the second network, the at least one response to the at least one query related to the second message **(Response is relayed to requesting network by network discriminator (810) in Figure 9)**.

10. The method of claim 9, wherein the steps of interpreting and generating are common to the first protocol gateway and the second protocol gateway **(Normalized messages results in the generic queries in the message handler (820) in Figure 9)**.

11. The method of claim 8, wherein the step of receiving the message terminates the network protocol **(The network protocol is terminated by the message handler which receives and normalizes message in Figure 9)** .

12. The method of claim 8, wherein the rules associated with the network protocol comprise at least one communication standard **(Figure 9 identifies the ANSI-41 and GSM standards)**.

13. The method of claim 8, wherein the plurality of network protocols comprises at least two of ANSI-41, GSM MAP, SIP, H.323, AAA, and M-IP **(Figure 9 identifies the ANSI-41 and GSM standards)**.

14. The method of claim 8, wherein the network protocols transport at least one of voice, data, and multimedia via at least one of wireline and wireless communication media **(ANSI-41 and GSM transports at least voice over at least a wireless media)**.

15. The method of claim 8, wherein the database comprises data for a plurality of communication devices and data utilized by at least two networks **(Database 1200 stores data for subscribers utilized by a plurality of networks (page 6, lines 3-12))**.

16. The method of claim 15, wherein the data comprises user profile information **(Subscriber information on page 6, lines 3-12)**.

18. The method of claim 8, further comprising the step of providing an interworking function between the first network protocol and a second network protocol **(Message handlers 820 provide the interworking function by providing the translation between different protocols ((specification, page 13, lines 1-4))**.

34. A method comprising the steps of:

receiving a message from a first network via a first protocol gateway **(In Figure 9, ULSR receives a LocationRequest from ANSI-41 network, wherein the network discriminator/message handler functions as a protocol gateway)**;

processing the message according to a procedure common to the first protocol gateway, a second protocol gateway, and a database **(Normalized message results in the generic locationrequest message (820) in Figure 9)**;

generating at least one database query based on the processed message **(Generic locationrequest query results in the look up user record in ULSR database in the Network Service Object 830 in Figure 9)**;

relaying the at least one database query to a database comprising data common to a first network associated with the first protocol gateway and a second network associated with the second protocol gateway **(Message handler 820 in the ULSR normalize all information such that the information is common since it does not include any formatting specific to a particular network (specification, page 12, lines 12-17))**;

receiving a response to the at least one database query and generating a request to the second protocol gateway **(Response to the database look up results in the Provide Roaming Number message to the GSM message handler 820 in Figure 9)**;

receiving a reply to the request to the second protocol gateway **(Receive reply message from GSM MSC in Network Discriminator 810 in Figure 9)**;

generating a message based on the reply **(Form generic call termination response in Network Service Object 830 in Figure 9)**;

relaying the message to the first protocol gateway **(Generic message is relayed to ANSI-41 message handler 820 in Figure 9)**.

36. The method of claim 34, wherein the response identifies the second protocol gateway **(Look up user record in ULSR database identifies the second protocol gateway--GSM message handler in Network Service Object 830 in Figure 9)**.

37. The method of claim 34, wherein the response identifies a location for a communication device **(GSM MSC is a location of the mobile user in Figure 9)**.

39. The method of claim 34, wherein the reply includes routing information **(Routing number message from GSM MSC in Figure 9)**.

40. The method of claim 39, further comprising the step of utilizing the routing information to route a call to a communication device located in a coverage area of the second network **(Routing number is used to route a call between ANSI-41 and GSM users (specification, page 13, lines 25-27))**.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 3 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamb et al.

Lamb does not teach an application gateway associated with their multiple-protocol home location register. However, Lamb explicitly suggests providing interfaces for provisioning operations and maintenance of the platform in the ULSR 1000 (page 11, lines 26-27). Provisioning operations and maintenance operations can be considered application functions. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an application gateway in Lamb in order to provide provisioning and maintenance operations that would have been associated with the provisioning and maintenance of the ULSR database 1200 as explicitly suggested by Lamb.

With respect to the claims below, references to the prior art appear in parenthesis.

Claims

3. The multiple-protocol home location register of claim 1, wherein the processor comprises one or more application gateways, operably coupled to a database that provides the common source of data, wherein the one or more application gateways are arranged and constructed to interpret messages and generate, utilizing the common control procedures, one or more queries to the database **(Lamb explicitly suggests providing interfaces in the ULSR 1000 for providing provisioning and maintenance operations in page 11, lines 26-27, wherein the provisioning and maintenance requests would have been normalized since the requests to the ULSR database 1200 are normalized in page 12, line 18 to page 13, line 4)**.

17. The method of claim 8, further comprising the steps of generating at least another query related to a message from an application server and upon receiving a response to the at least one query, relaying the response to the application server **(Lamb explicitly suggests providing interfaces in the ULSR 1000 for providing provisioning and maintenance operations in page 11, lines 26-27, wherein the provisioning and maintenance requests from a provisioning and maintenance server would have been normalized since the requests to the ULSR database 1200 are normalized in page 12, line 18 to page 13, line 4)**.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Marcelo whose telephone number is 571-272-3125. The examiner can normally be reached on Mon-Fri 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on 571-272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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